

The LongPath

A North Alabama DX Club Publication

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How to Join

- * Come to a club meeting;
- * or send in an application by mail (form on www.NADXC.org)
- * or call Tom Duncan at (256)705-2147

From the President

The CQ WPX contest just didn't seem quite the same without talking to Tom, N4KG during the contest. We would always compare observations about propagation and good multipliers during the slow periods. I decided to enter this year as single band 40 Meter, non-assisted, high power. I won that category in the US in 2015 and wanted to try to do the same again this year. My goal was to try and end up with the same score as I had in 2015. Since propagation was likely not going to be as good as 2015, rain was predicted which normally comes with higher noise levels and I had a Saturday night social commitment, I had to make it up with strategy to overcome those issues. I decided to work an hour extra in the morning running US stations until about 9AM local time and start an hour earlier in the afternoon at 3PM doing the same thing. Those 4 hours turned out to be very productive. I also spent 90 percent of the contest running. Although most of the stations were US the rate was high. That is one of the things I like about the WPX contest. I could rock the rate meter. Near the beginning of the contest I had 231/ hr during a 3 minute period and 182 per hour over 33 minutes. That doesn't leave much time for serial number or call sign repeats. To get the rate up I try to get a complete call after the caller gives his call just once to train the pileup to call just once.

My score in 2015 was 1,273,412 with 1,212 qsos and 511 multipliers. This year it was 1,241,352 with 1,461 qsos and 504 multipliers. QSOs were up 20 percent with multipliers down about 1.4 percent. The

reason the final score was lower is because the number of points per QSO was lower due to the large number of US stations.

I always consider the contest and DX season starts with CQWW RTTY at the end of September and ends with CQ WPX phone at the end of March. The rest of the year I focus on improvements to the station. I try to have my projects for the year defined well enough by the Dayton Hamfest so that I can pick up the parts I need there. What gets replaced or has been upgraded then gets sold at the Huntsville Hamfest or remains as a backup. About a third of my projects don't get finished in one year and get continued the following year. The last 2 years I

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Improve your Audio and Improve DX and Contest Scores

April Program by Bob De Pierre, K8KI

Bob, K8ki, will demonstrate ways to improve your transmit audio so as to improve your SSB DX and contest scores. How does your ear respond to sounds, how are mics made, and what do equalizers and speech processors really do. He'll present actual transmitter recordings for comparison. Get to the Golden Corral around 6:00 pm for dinner, 7:00 for the business meeting, and 7:30 for Bob's presentation.



From the President

(cont'd from p. 1)

built a 2 Meter EME capability. I will continue to improve that again this year. I'm still working on two of the projects from last year. I got a Yaesu FTV-250 2 meter transverter from John Stensby, N5DF last year and plan to interface it with my Orion 2. I am finally working out how I will interface and sequence everything and begin testing. It uses the old 11 pin octal sockets for many of the connections. I will have to look at Dayton for one of those. I am also planning to improve my matching harness for the two 13 element yagis.



FTV-250 Front Panel

Those two EME projects didn't get done last year because each of my HF antennas also required maintenance in the off season. Antennas that are up between 5-10 years start to require some maintenance. If you ignore it then you develop performance issues like high SWR, intermittent connections or worse safety issues. You certainly don't want to let your towers get rusty and corroded or have guy wire issues that become major safety issues. I also have had critters that like to chew on coax

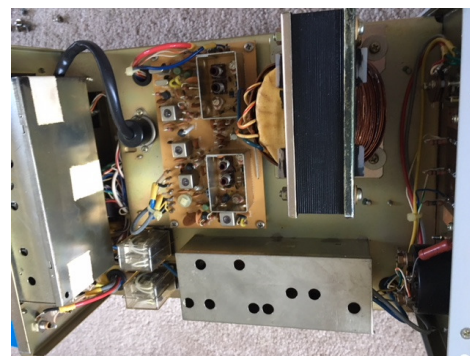


Whodunnit?

and wires. I had one critter eat apart a 1 inch braid ground strap and the center conductor of RG-6 last year on my 40M vertical array. I expect it was a rat, mole or squirrel. With all the vegetables I share with them in the garden I don't think they have any manners.

After 2 months of collecting and forwarding QSLs to the ARRL we have decided to have a flat rate of \$3 an ounce. That will also allow Stephen Smith, KK4TJP to batch and send cards more often. We would have to collect to many cards to make it economical at the old rate of \$2 an ounce after the first \$3 ounce.

I look forward to Bob's (K8KI) presentation at the club meeting this month on transmit audio. He has improved on the one he gave at the Huntsville Hamfest last year. Bob puts an incredible amount of time and thought into his presentations. He is also putting together a good presentation for this year's Huntsville Hamfest on the history of power amplifier design.



FTV-250 under the hood: top view. Note the pesky 11-pin plug to the left. Relays are still commonly available with 11-pin plugs.



FTV-250 flip side

73 Steve AG4W

Minutes of the March 13, 2018 NADXC Meeting

By Kelley Johns, W4VPZ-NADXC Secretary/Treasurer

Attendance

Members 27 & guests 9

Review of Sign-in Sheet & DX worked

Tim AB4B	3C, TN, TY all Low Power 15 – 80 mtr
Fred AE4ED	3C, TX, ZP
Ralph K4KOB	XRO YD 20 CW – 10 RTTY – 12 CW – 15 SSB
Mark N4BCD	XRO YD 20m SSB & RTTY, TN5R 20m & 17m SSB, 20m & 30m RTTY, T77C 30m RTTY
Kevin KG4TEI	PY (FT8)
Chuck N4NM	3C, 3DZ
Rob KB5EZ	3C, 3DZ

M.D. WA4DXP	CU4, CR3, RN1
Dan W4BRE	3C0, Z2LA, TN5R, XRO YD, etc.
Johnny KR4F	3COW/40m RTTY – new band & mode
Lyle K4NA	9M0 80, TY7C 160, Z60A 160
Jim N4KH	Z60
John N5DF	3COW, 3C3W, 4B4B, Z60A
Tom KG4CUY	3COW, Z60A
Steve AG4W	Z60A, TN 80m
Jerry K4SAV	Z60A 160, TY, 3C, A6, TN, 3D2, XRO
Stephen KK4TJP	H40YM, T88XH and QSL from TL8TT
Walter AJ6T	3COW, TN4R

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Minutes of the March 13, 2018 NADXC Meeting

(cont'd from p. 2)

Announcements

Tom Russell N4KG became a silent key on March 8th. Ruth Velasquez, Tom's sister is with us tonight. Tom logged 2986 contacts for DXCC, and 349 on 80m. Tom has lots of antennas and radio equipment he wanted to donate to the club. Two groups were identified to work on the donations. Outdoor antenna equipment will be looked at by Bruce AC4G, Mark N4BCD, and Tim AB4B. Inside equipment will be sorted out by Bob K8KI, Tom KG4CUI, John N5DF, and Steve AG4W. (Please forgive your secretary if these lists are incomplete or incorrect; the planning happened very quickly!) The gear and hardware could be sold in the flea market at the Huntsville Hamfest or on eBay, and some might be used as door prizes at the Hamfest Banquet. The committees will begin working at Tom's house in April.

Many wonderful stories of Tom were shared by members of the club, and by Tom's family and very close friends. Tom was a long-time friend of our DX Club members, an author of numerous published articles, and a passionate amateur radio operator.

Johnny N4KG suggested the Club to sponsor a brick in the ARRL Diamond Terrace in Tom's memory, and the membership voted to honor Tom with a memorial brick. The cost of a brick is \$250, and members donated \$120. The balance of the memorial will be covered by proceeds from the equipment sale or by donations. The brick's inscription will be:

Tom Russell
N4KG
NADXC DXer

Treasurer's Report

Beginning Balance	\$ 4,483.07
Debits	
Website Hosting (QTH.com)	-\$ 13.32
Credits (dues payments)	
PayPal Deposit	\$ 50.07
Deposit	\$ 56.00
Ending Balance	\$ 4,575.82

The treasurer's report was approved of by the membership.

Membership Applications

None.

Old Business

Chuck N4NM is working on updating the DX Club's Honor Roll plaques. Progress is being made, but a new plaque will need to be purchased to add the new names. Chuck will investigate the cost and report back.

Reminder: Stephen KK4TJP is sorting and mailing outgoing QSL cards for DX Club members who are also members of the ARRL.

Steve AG4W turned in his name to Greg Sarratt from the SE Division DX Advisory Committee member based on the support of the Club. He was not chosen to be on the committee.

Ideas for a Banquet Speaker are needed.

New Business

Mark N4BCD encouraged the Club members to read the current proposal by the ARRL that would grant some HF privileges to Technician license holders, and express your opinion to ARRL.

The meeting adjourned and was followed by a program by James Casey AI4LX -- Operation at the South Pole, one of the most isolated scientific research stations in the world.

Treasurer's Report

Treasurer's Report for March 2018

Beginning Balance \$ 4,575.82

Debits

Speaker's Dinner -\$ 17.75

Credits

Dues Payments \$ 220.80

Ending Balance \$ 4,778.87

Barefoot Chronicles?

What have we done with Barefoot Chronicles? Has the LongPath Staff messed up again?

While that wouldn't stretch anyone's imagination, family circumstances threw a monkey wrench in the works for NM4T this month. Craig assures us Barefoot Chronicles will return in May.

The LongPath Staff

Publisher/Editor:

Tom Duncan, KG4CUI

Departments:

Chuck Lewis, N4NM, DX Contests

Kelley Vann-Johns, W4VPZ, Minutes

Steve Werner, AG4W, From the President

Craig Behrens, NM4T, Barefoot Chronicles

DX Contests for April

By Chuck Lewis, N4NM

SP DX Contest, (CW, SSB), 160-10 meters

Apr. 7, 1500Z to Apr. 8, 1500Z

Exchange: RS(T) plus Serial (SPs send province)

See: page 84, Apr. QST and www.spdxcontest.pzk.org

OK/OM DX Contest, (SSB), (160-10M)

Apr. 14, 1200Z to Apr. 15, 1200Z

Exchange: RS plus serial; OK/OM send RS plus county code (3 letters)

See: Page 84, April QST and www.okomdx.crk.cz

Yuri Gagarin International DX Contest, (CW), 160-10M

Apr. 14, 2100Z to Apr. 15, 2100Z

Exchange: RST, ITU zone

See Page 84, Apr. QST and gc.qst.ru/en

Japan Int'l. DX CW Contest (CW), (160-10M)

Apr. 14, 0700Z to Apr. 15, 1300Z

Exchange: RST plus CQ zone; JAs send RST plus prefecture

See page 84, Apr. QST and www.jidx.org

ES Open HF Championship, (CW & SSB), 80 & 40M

Apr 21, 0500Z to 0859Z,

Exchange: RS(T) plus Serial #

Note: Dupes OK once per hour (see rules)

See Page 84, April QST and www.erau.ee

Worked All Provinces of China, (CW & SSB), 80-10M

Apr, 21, 0600Z to April, 22, 0559Z

Exchange: RS(T), and serial (or province abbr.)

See page 84, April QST and

www.mulandxc.org

YU DX Contest (CW), 160-10M

Apr. 21, 1200Z to Apr 22, 1159Z (see website for times)

Exchange: RST plus Serial # ; YUs send County

See page 84, April QST and www.yudx.yu1srs.org.rs/

CQMM Contest, (CW), 80-10 meters

Apr. 21, 1200Z to Apr. 22, 2359Z

Exchange: RST, continent abbrev., category

See Page 84, Apr. QST and www.cqmmcx.com/rules

UK/EI 80M Contest, (CW), 80-10M

Apr. 25, 1900 to Apr. 25, 2000Z

Exchange: 4-Char. Grid square

See page 84, Apr. QST and www.ukaiccc.com

SP DX RTTY Contest, (RTTY), 80-10M

Apr. 28, 1200Z to Apr. 29, 1200Z

Exchange: RST, plus Serial # or SP province

See Page 84, Apr. QST and www.pkrvg.org

Helvetia Contest, (CW, SSB, Dig.), 160-10M

Apr. 28, 1300Z to Apr. 29, 1259Z

Exchange: RS(T) plus Serial # or Swiss canton

See Page 84, Apr. QST and www.uska.ch



OTHERS:

EA RTTY Contest

Apr. 7, 1600Z – Apr. 8, 1600Z

Holyland DX Contest

April 20, 2100Z to Apr. 21, 2100Z

ARI International DX Contest

1200Z, May 5 to 1159Z, May 6

Dates & times often change or are misprinted in the journals; beware!

Chuck, N4NM

NADXC Officers and Directors

President	Steve Werner, AG4W
Vice President	Rob Suggs, KB5EZ
Secretary/	Kelley Vann-Johns, W4VPZ
Treasurer	
At-large	Kevin Hibbs, KG4TEI
Directors	Tom Duncan, KG4CUY

Got Wall Warts?

by John Stensby, N5DF

Many of our electronic gadgets come with wall warts, DC-output power supplies that plug directly into a wall outlet. Eventually, the electronic gadgets are tossed in the trash while the “warts” are put in our junk box. Before long, we have a box full of “warts” that need repurposing.

Fig. 1 depicts a schematic of a simple, week-end project that can turn a “wart” into a variable precision DC power supply. Also, it can be used with a small, sealed-lead-acid 12 volt battery. With the component values shown, the supply is capable of producing a regulated output voltage that is adjustable from a high of 5 volts (set by the 1ma, 1N5297 current regulator diode and 5KW pot) down to a low of a few millivolts. The upper limit on output current can be high; it is set by the lowest of the 1) wall-wart current capability, 2) 2N3055 rating, or 3) the base-driving ability of the OP-Amp. At very low output voltages, excellence performance is ensured by the CA3260, a single supply Op-Amp that performs well with near-ground inputs and outputs. I need a precision, millivolt-output DC supply to support my RF power-meter development. This circuit fills the bill.

Ideally, each revolution of the 10-turn linear pot produces an output change of $\frac{1}{2}$ volt. And, the large, easy-to-read counter knob is calibrated from 0 to 100. So, in theory, each counter knob “tic” should correspond to a change of 5 millivolts. Better accuracy can be obtained by using a DMM to monitor the output voltage. Of course, component values can be changed to produce different results.

Figs. 2 and 3 show the power supply front and rear, respectively. A low/no-cost approach was used: all components were recycled from other projects, or they were obtained from my junk box. This explains the half-open project box with a few extra holes!

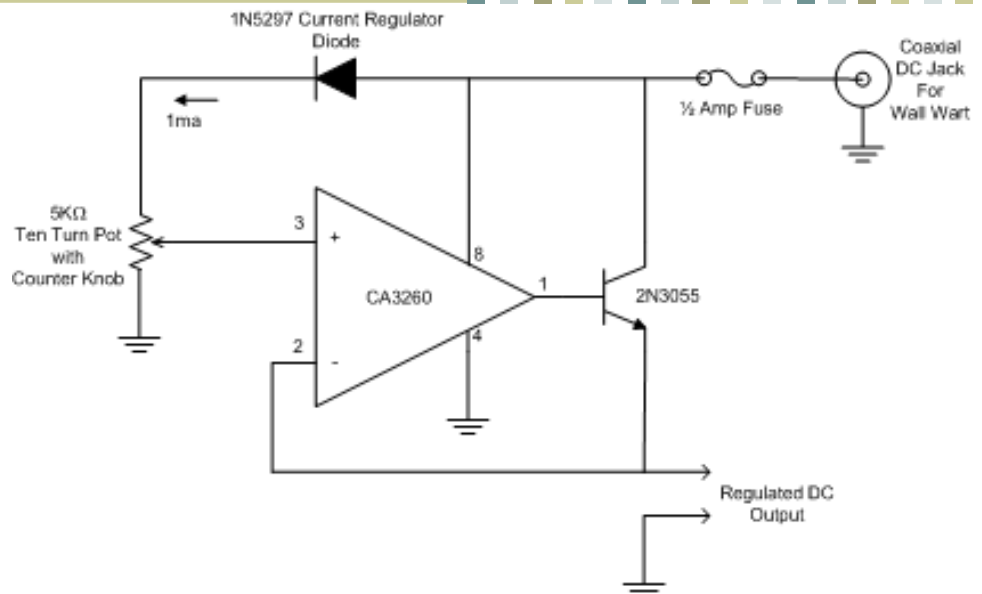


Figure 1—A Precision, Low-Voltage Power Supply



Figure 2—Front View



Figure 3—Back View

Bang-for-the-Buck Voltage Standard Comparison

by the LongPath Staff

N5DF's article is a great example of the ham's approach to getting things done with a minimum of fuss and cost. The current regulator diode is the only part in John's circuit you might not have sitting around in your junk box.

Compare this with the EDC CR-103 shown below, a fine instrument at a fine price—asking prices for this long-in-the-tooth standard are around \$700 on eBay, but who knows what they really go for.



Total cost-of-ownership for the CR-103 pressed into non-safety formal testing in the nuclear power industry includes yearly or at least bi-annual NIST-traceable calibration at \$98 a pop. I suspect many hams, even those with the special vernier attachment to their Simpson 260 VOM mirrored scale, don't lose much sleep over NIST-traceable calibration.

Your junk box and your imagination have great potential to produce a host of things useful around the shack—as Oliver Cromwell observed, “warts and all.”